

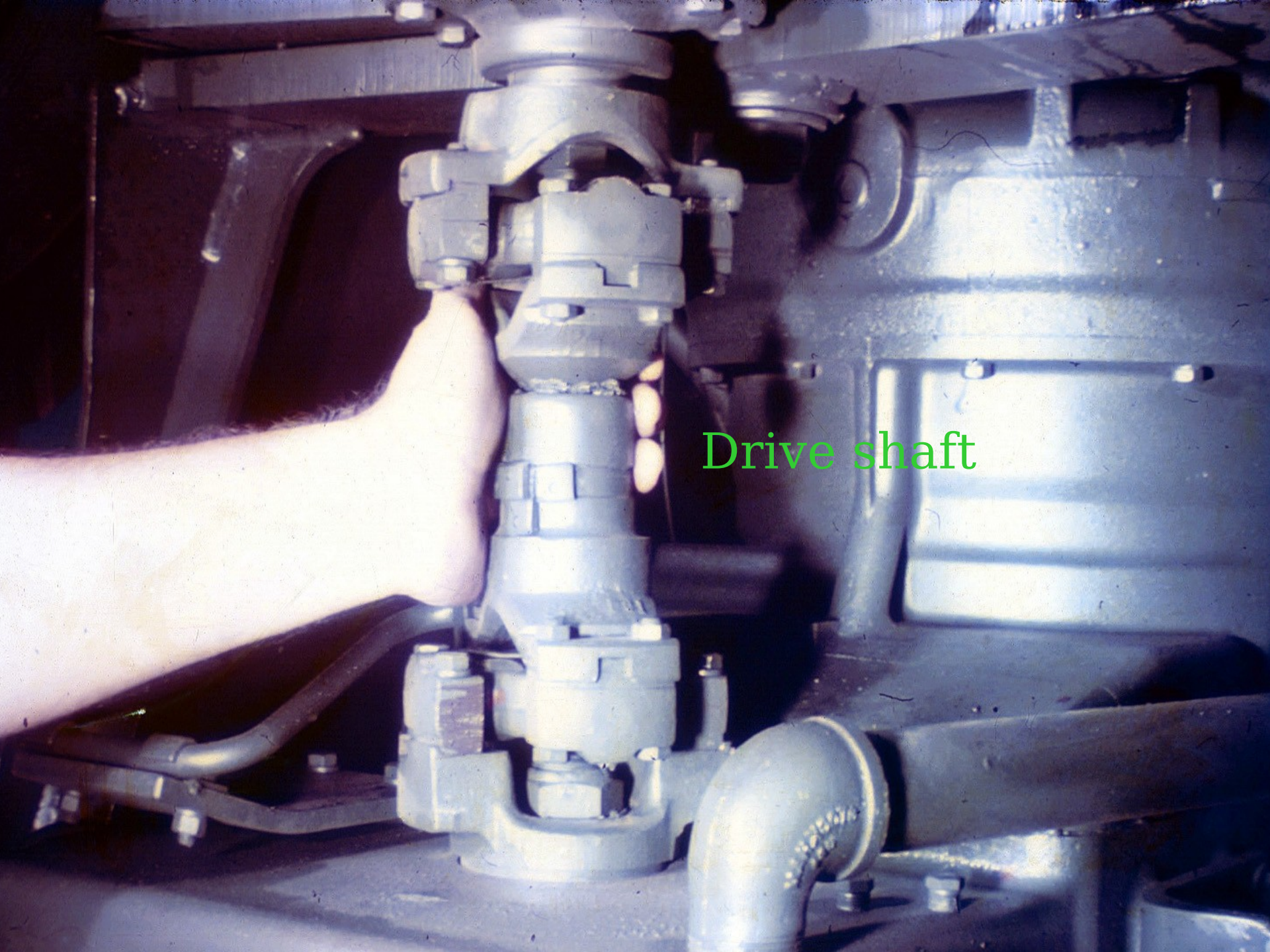
ENABLING LEARNING OBJECTIVE “B”

ACTION: Identify differential and axle components and their functions.

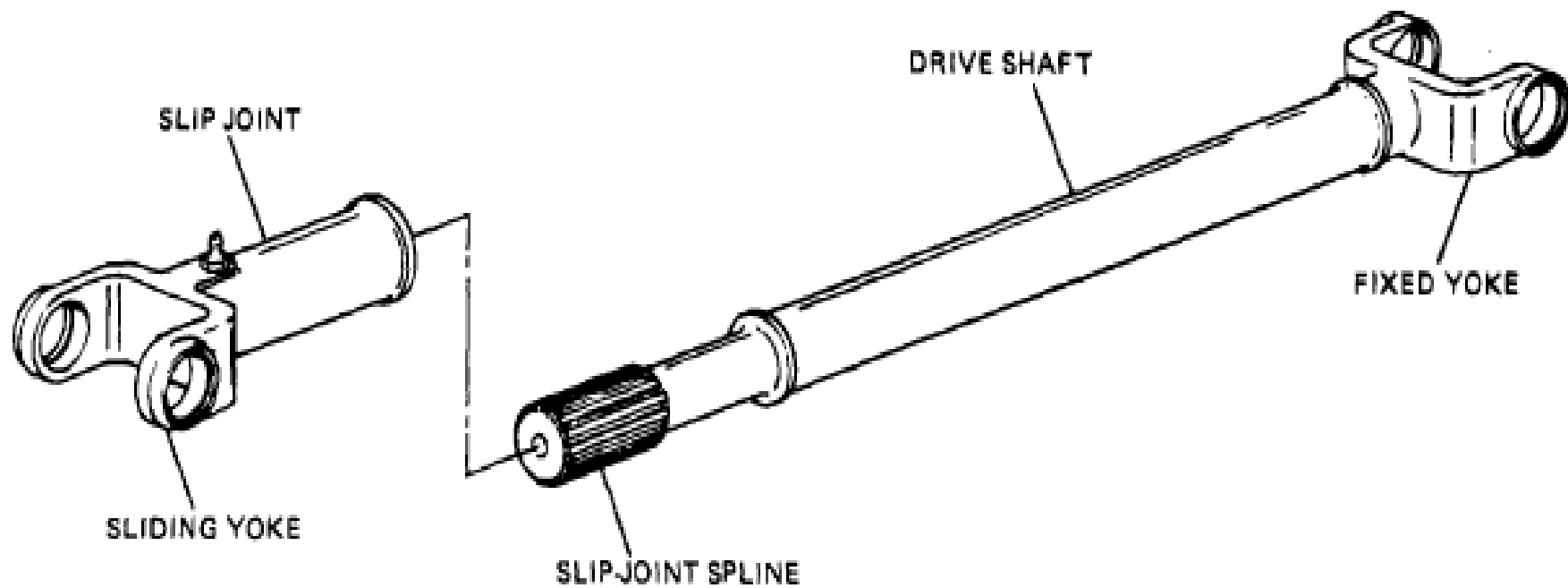
CONDITIONS: In a classroom and at a training site, given TM 5-3805-248-14&P2, TM 5-3805-262-20, TM 5-3805-262-34, TM 9-8000, a student guide, instruction on identifying differential and axle components and their functions, items of construction equipment, training aids, a general mechanics tool kit, special tools, TMDE, PPE, and a pen, and pencil.

STANDARDS: Identify differential and axle components and their functions

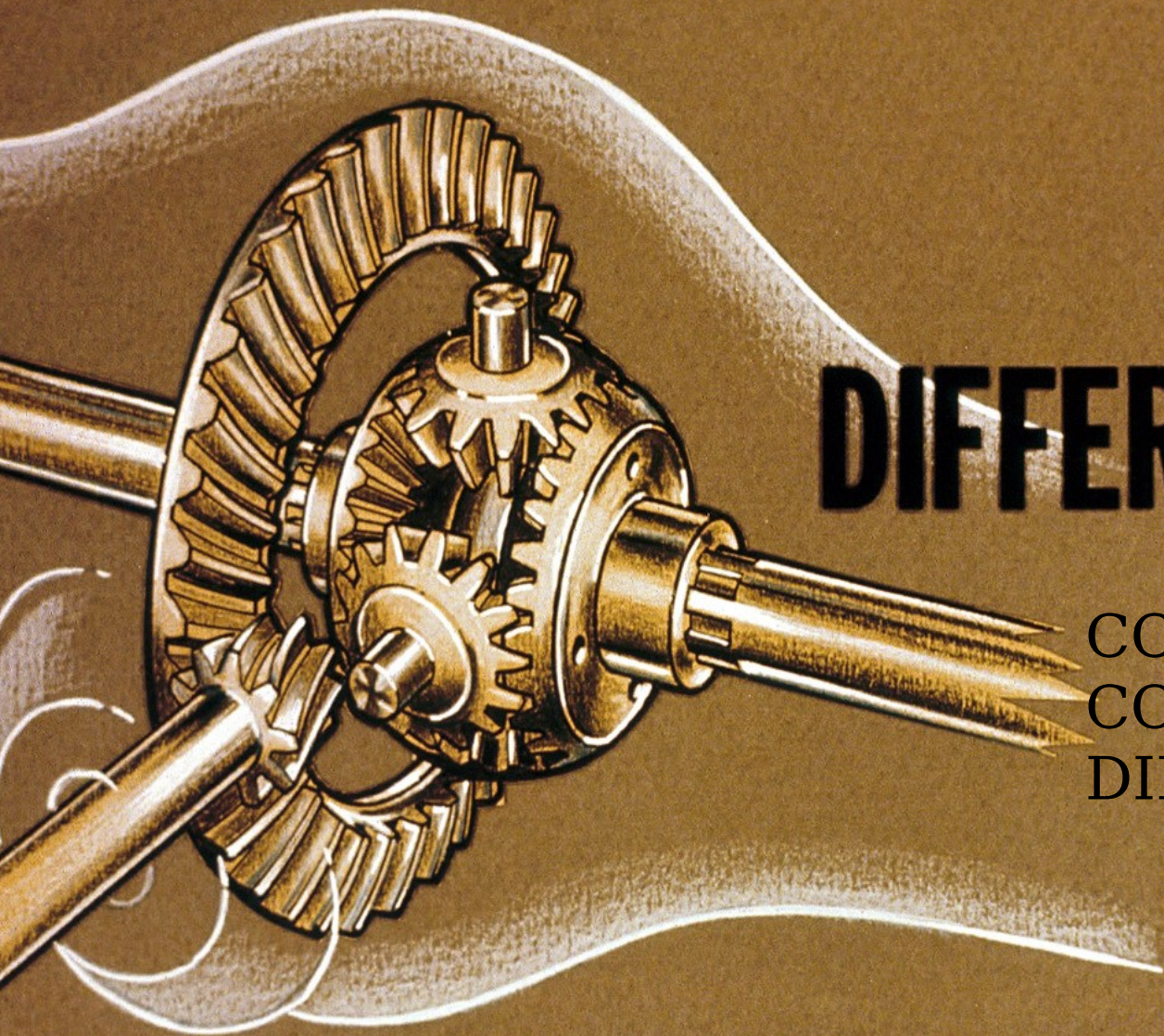
IAW TM 5-3805-248-14&P2, TM 5-3805-262-20, TM 5-3805-262-34, and TM 9-8000 without damage to equipment or injury to personnel.



Drive shaft





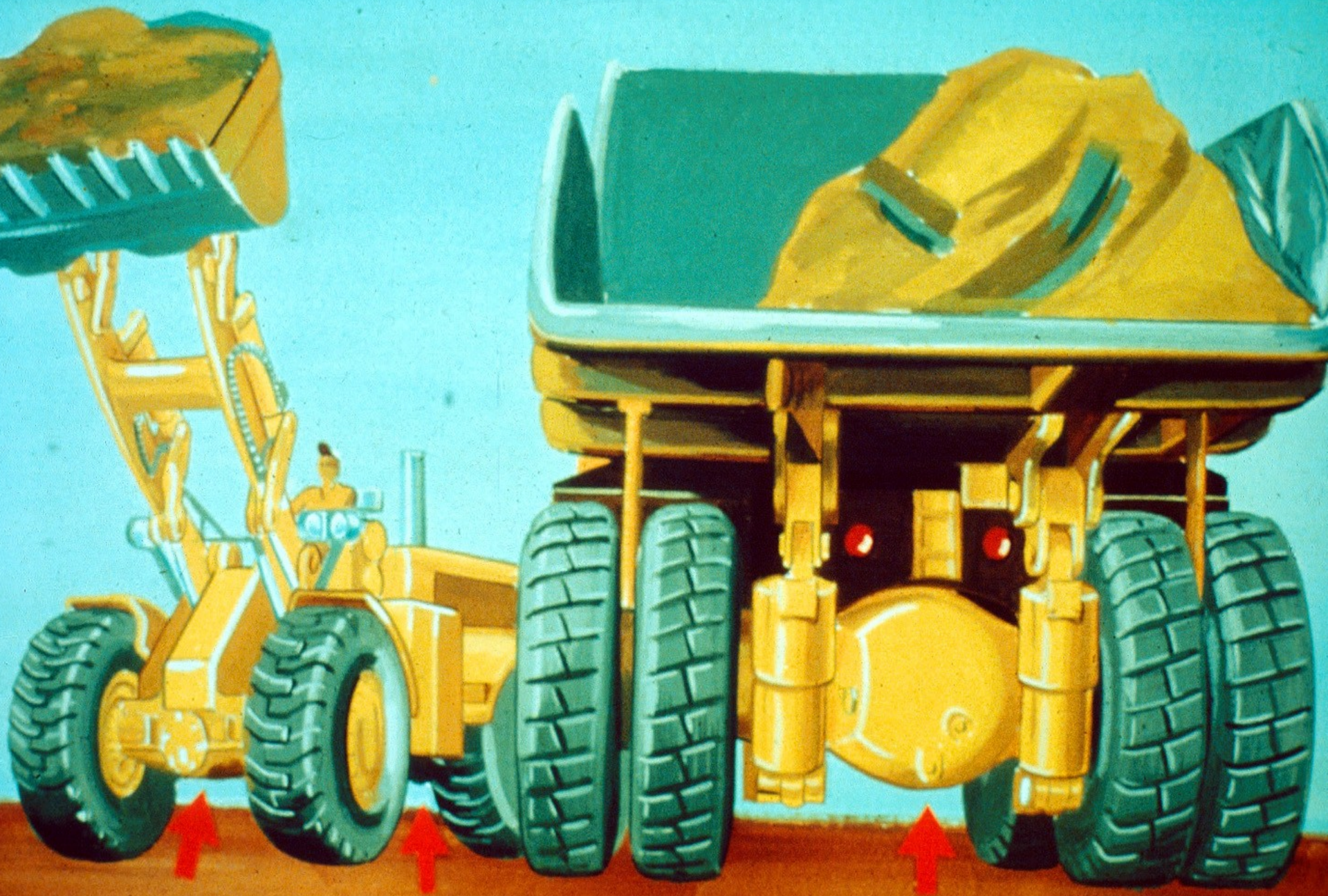


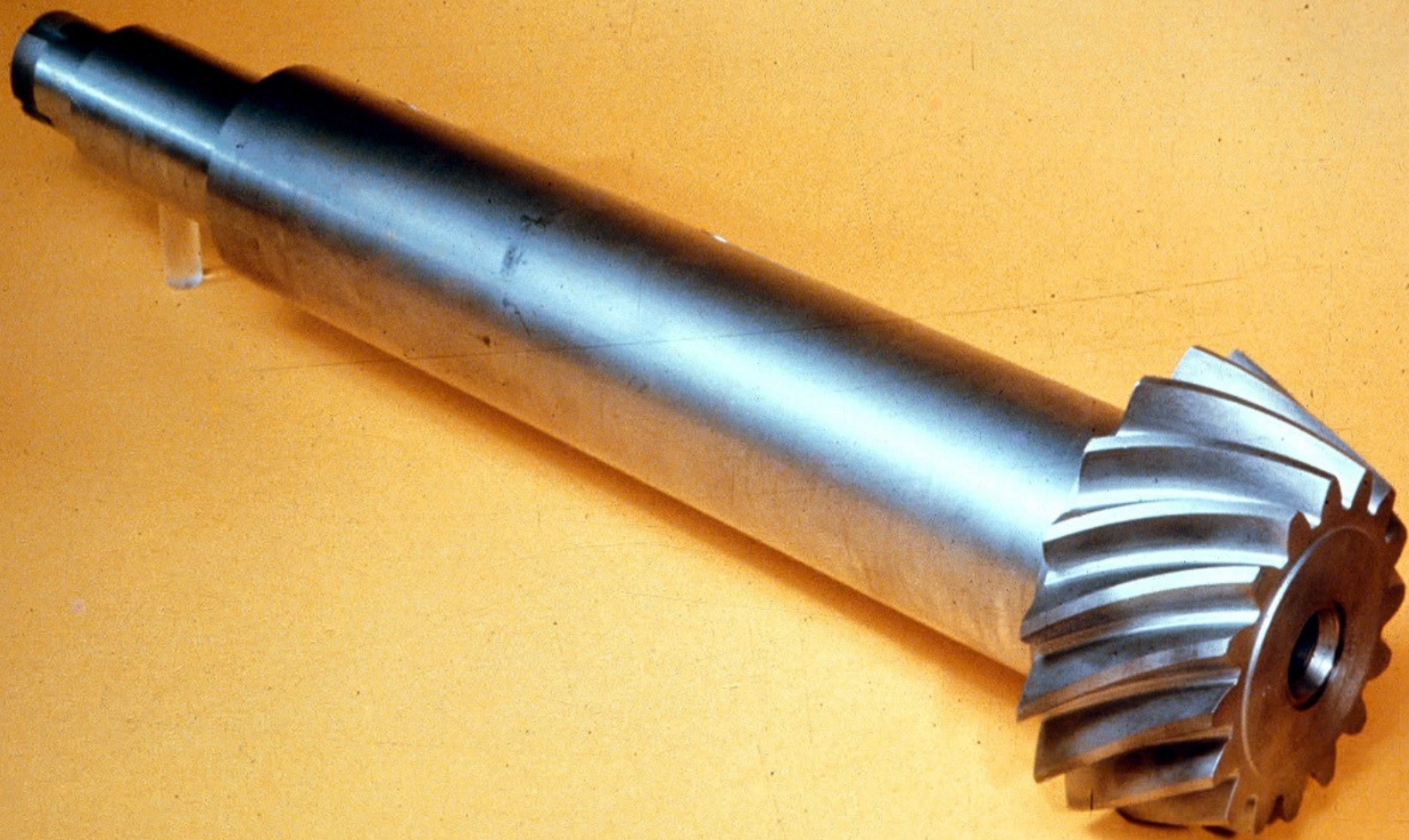
DIFFERENTIALS

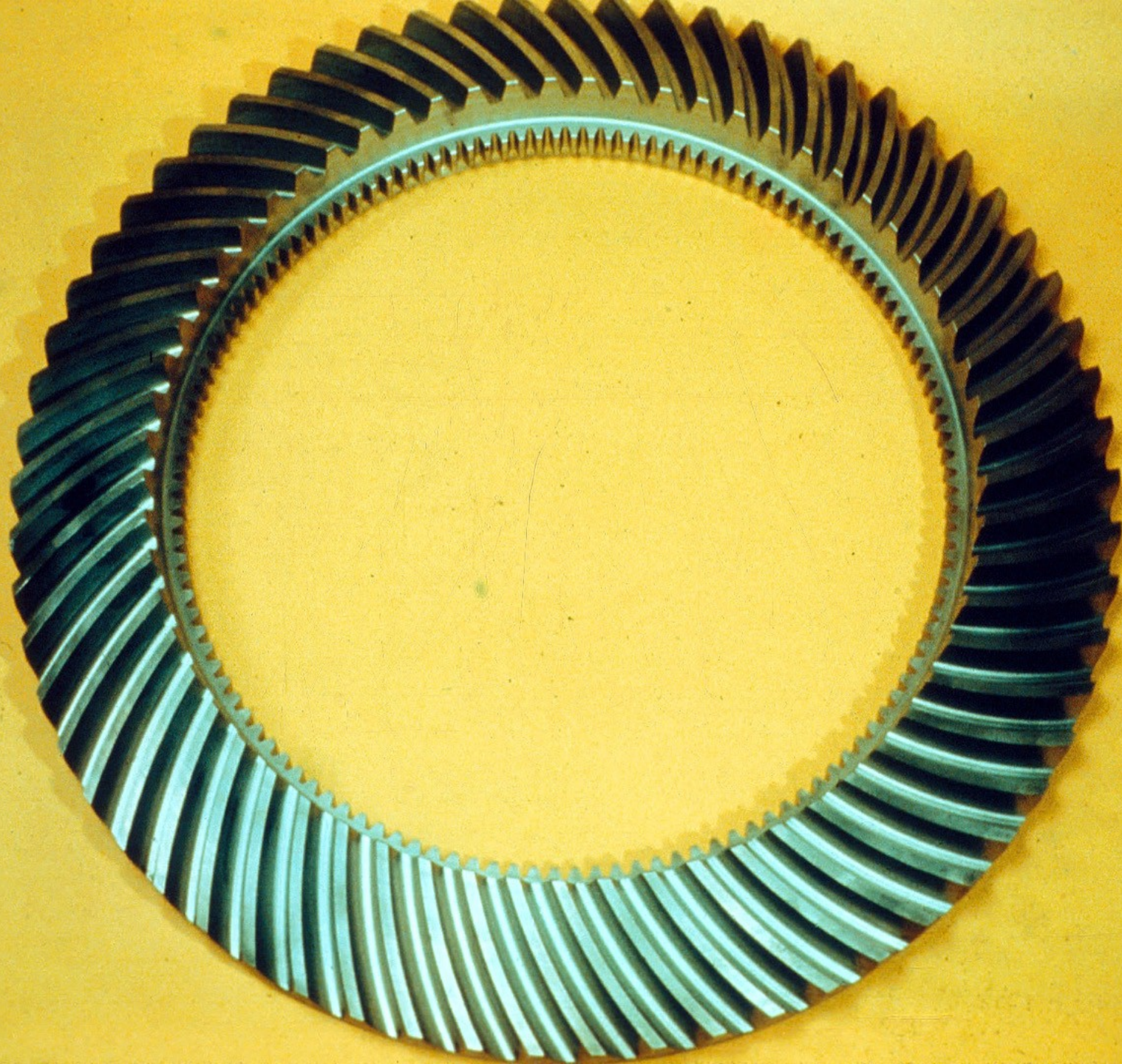
CONVENTIONAL NO S
CONVENTIONAL WITH
DIFFERENTIAL LOCK

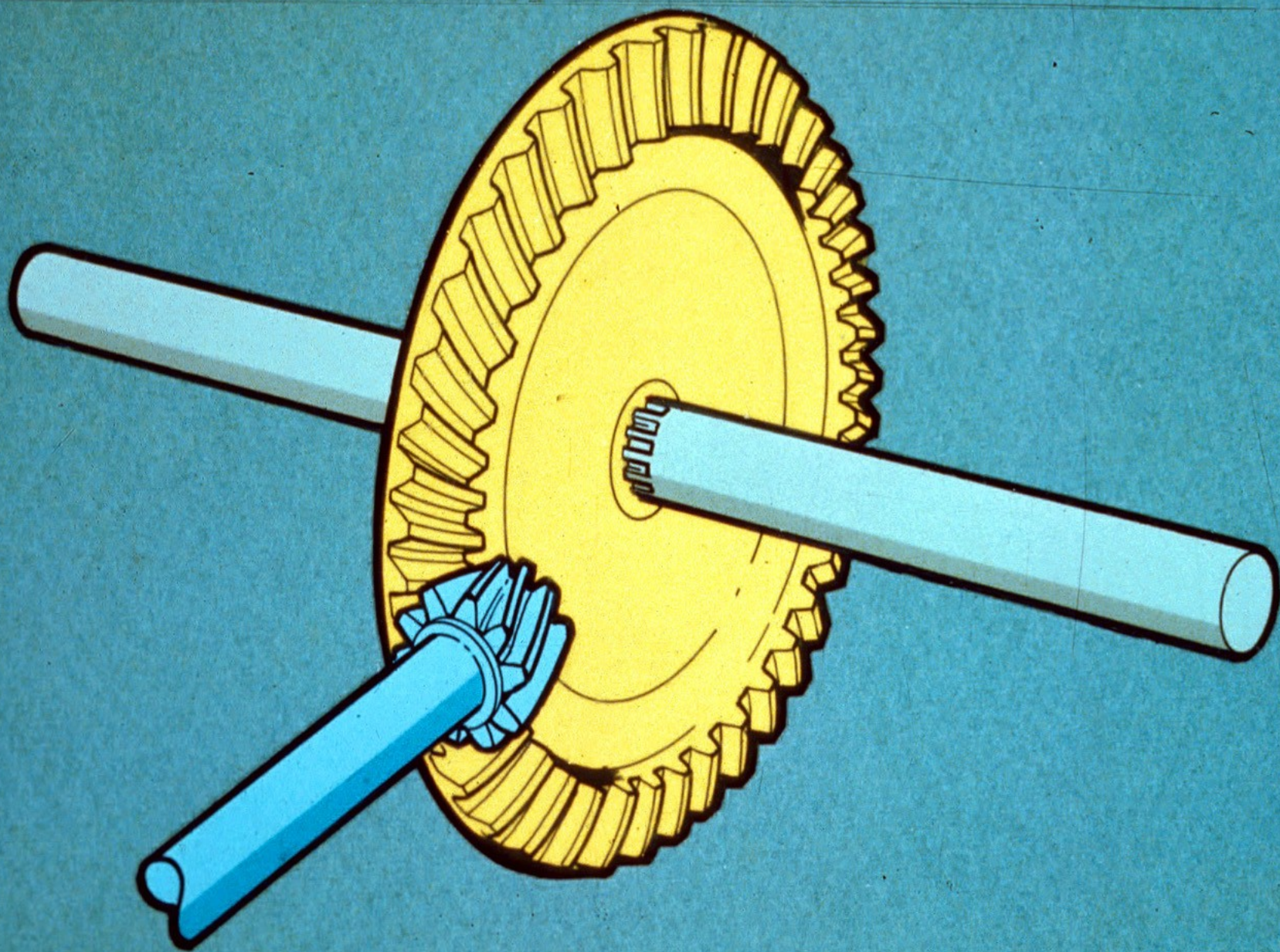
FUNCTIONS OF DIFFERENTIAL

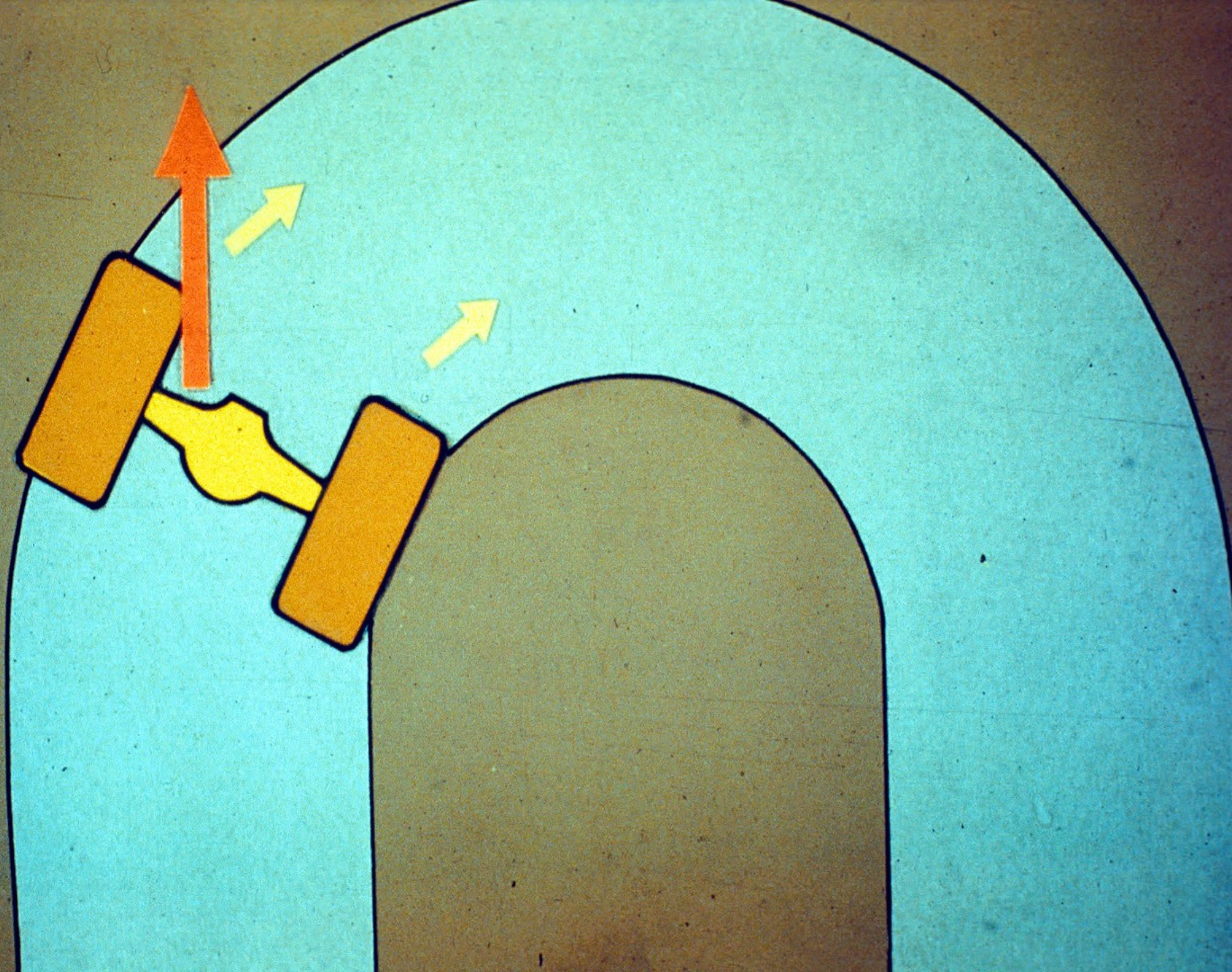
- **TRANSMITS TORQUE**
- **PROVIDES GEAR REDUCTION**
- **PERMITS INDEPENDENT WHEEL SPEED**

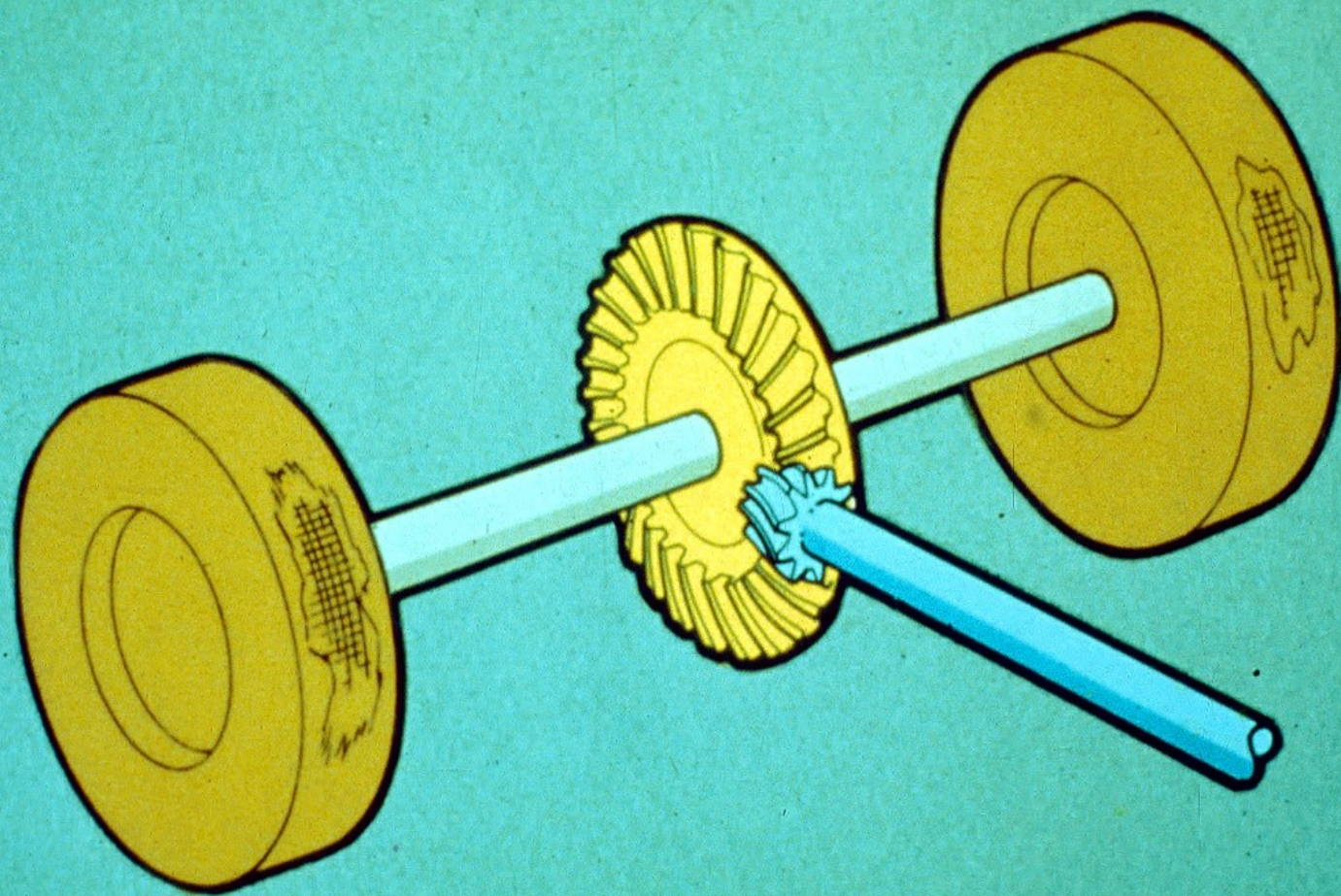


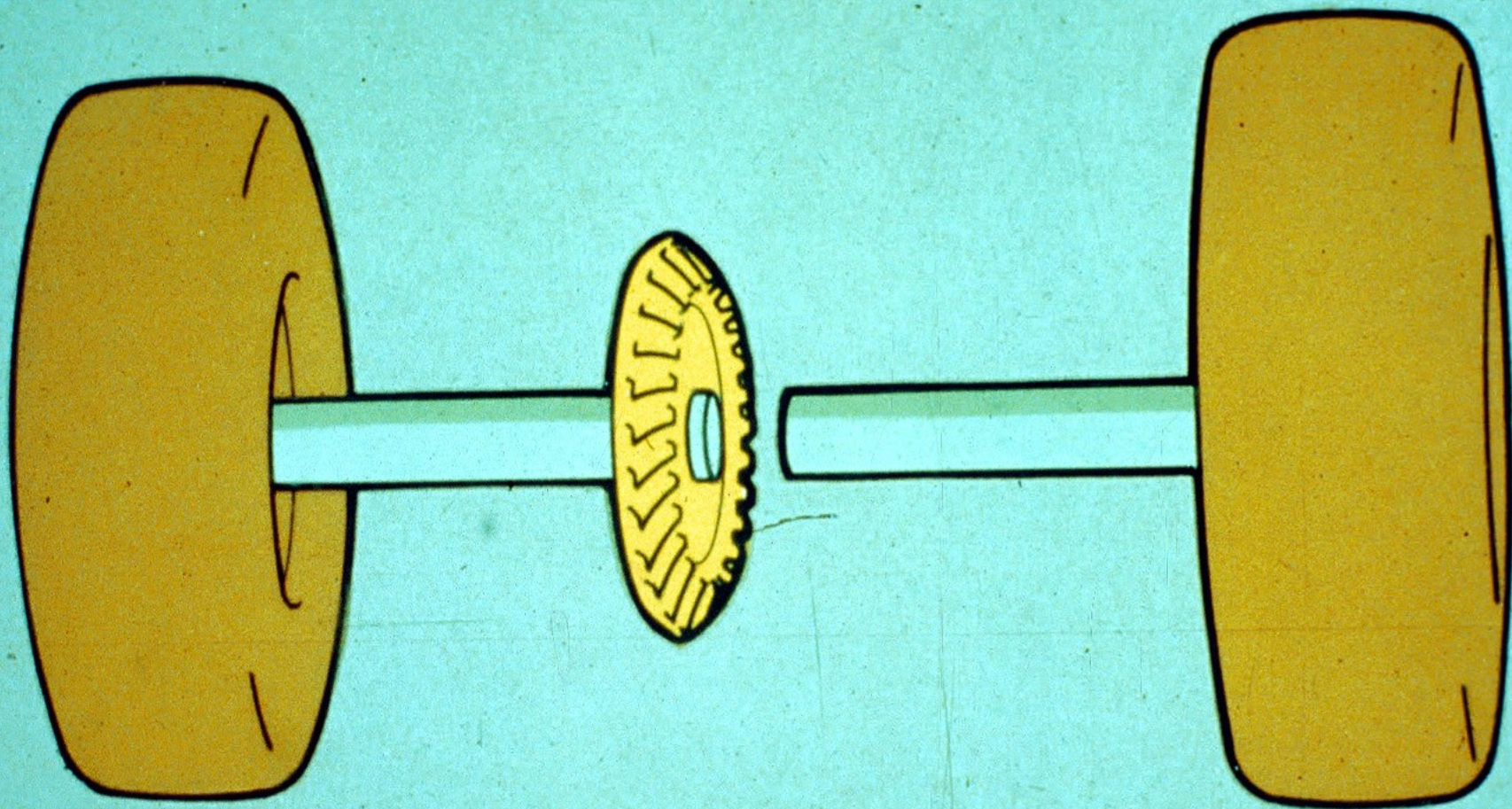


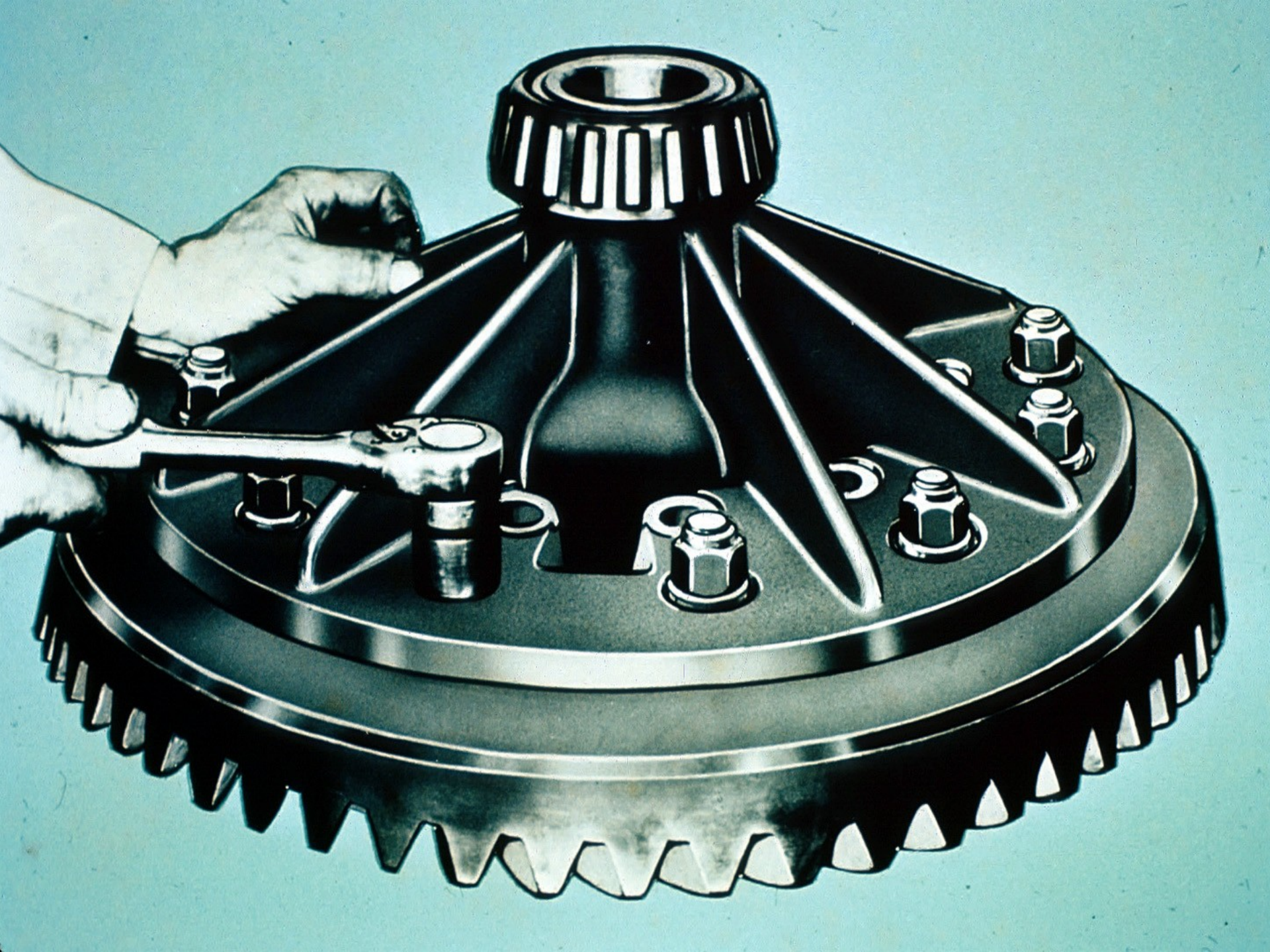


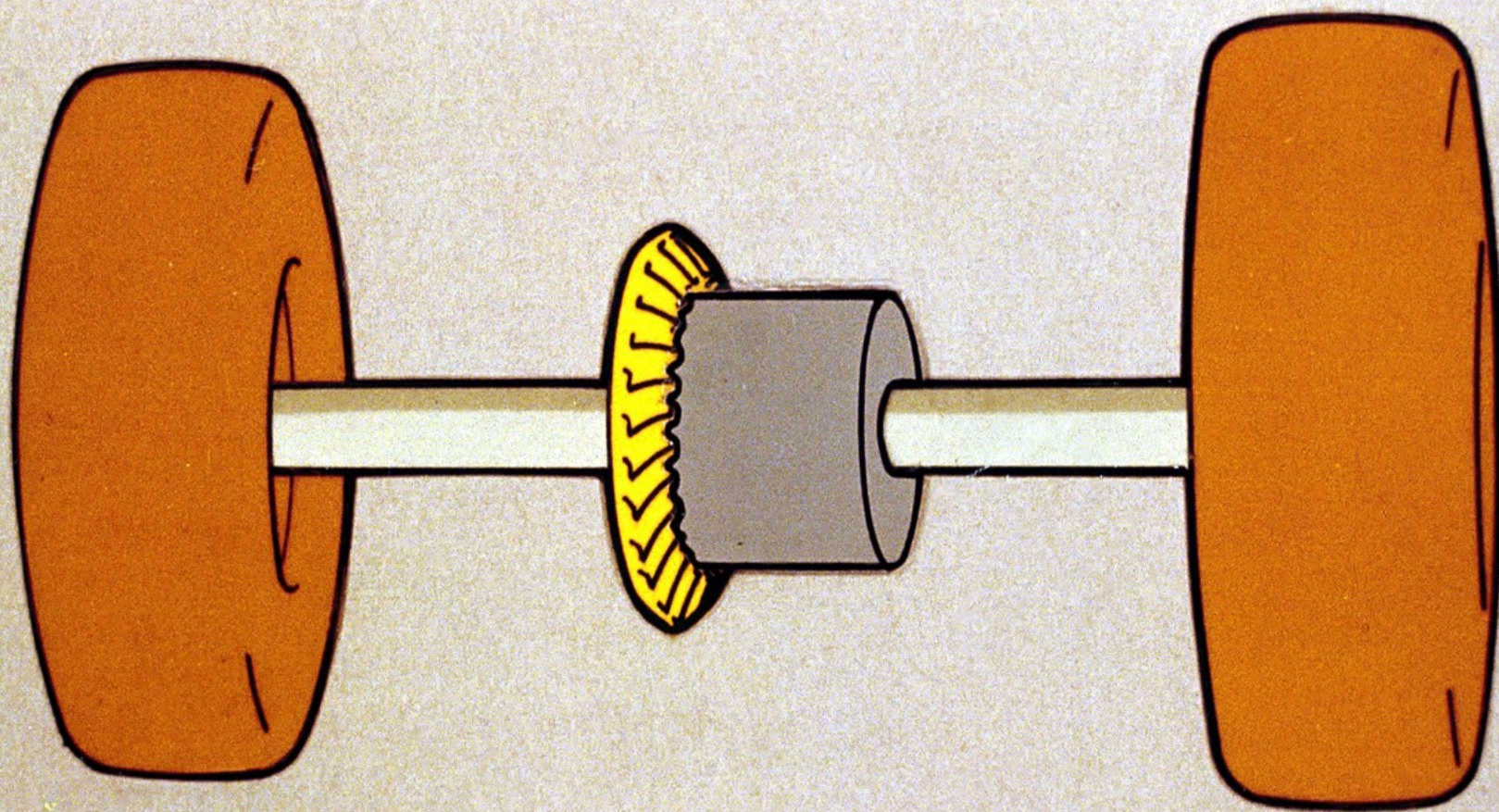


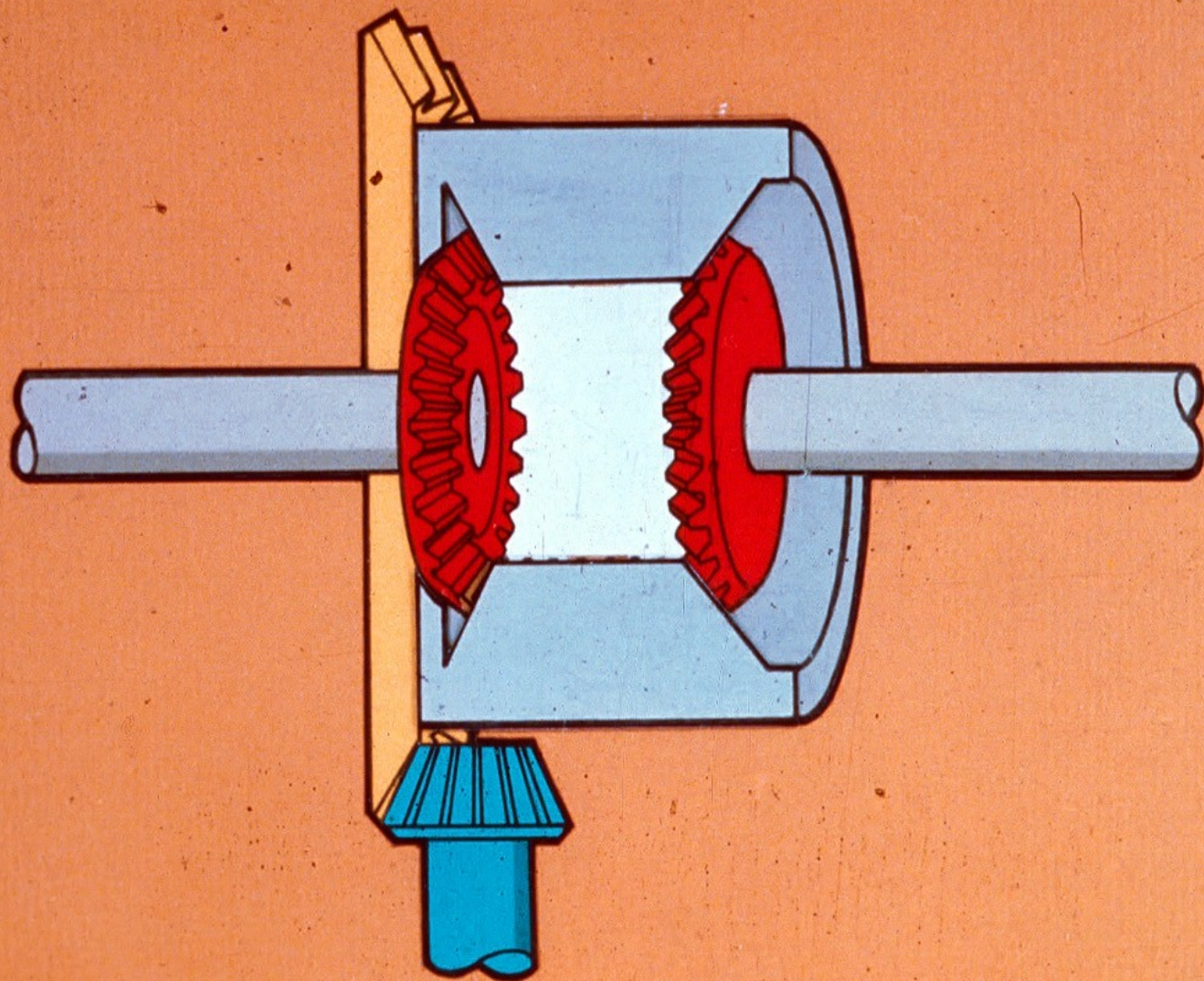


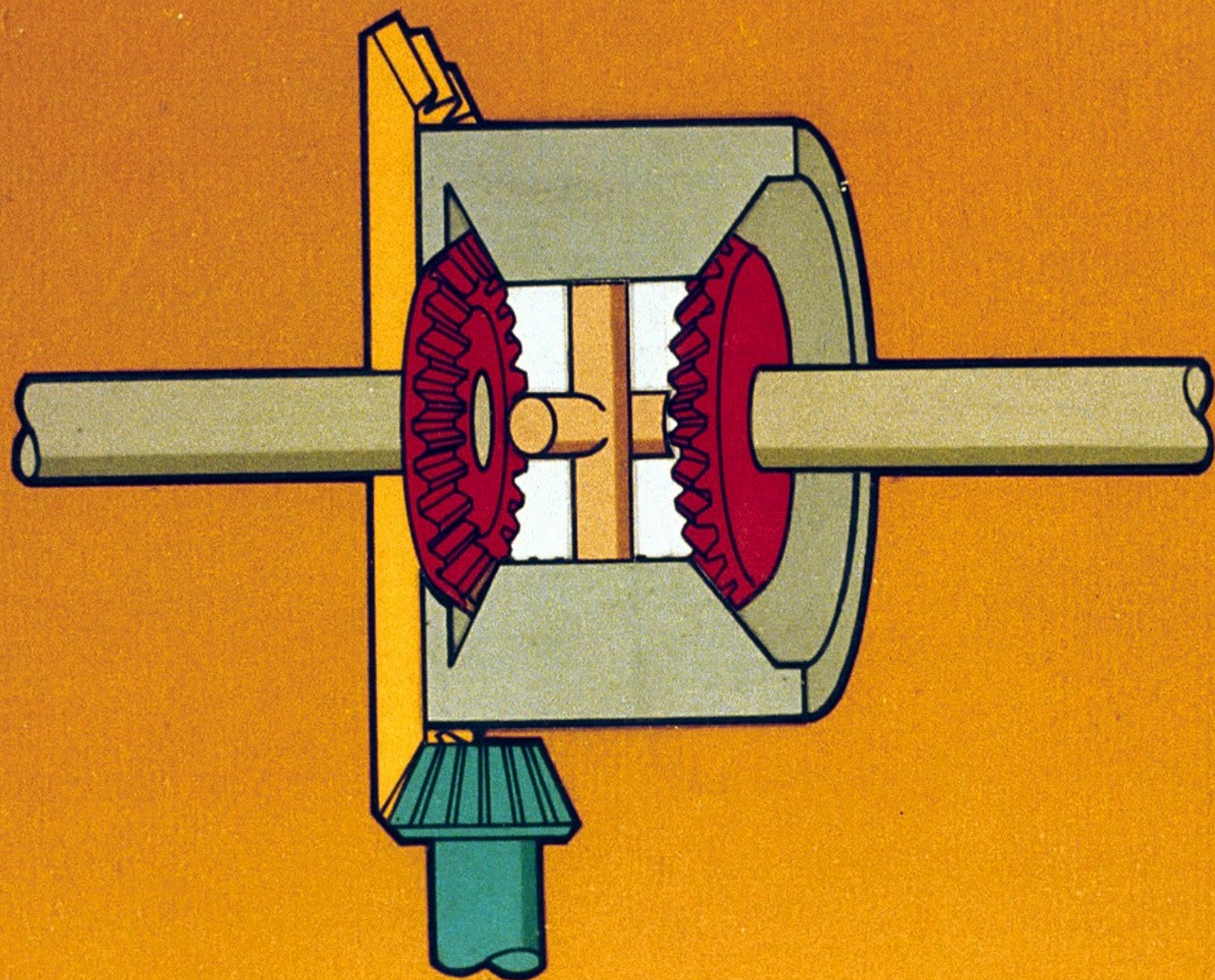


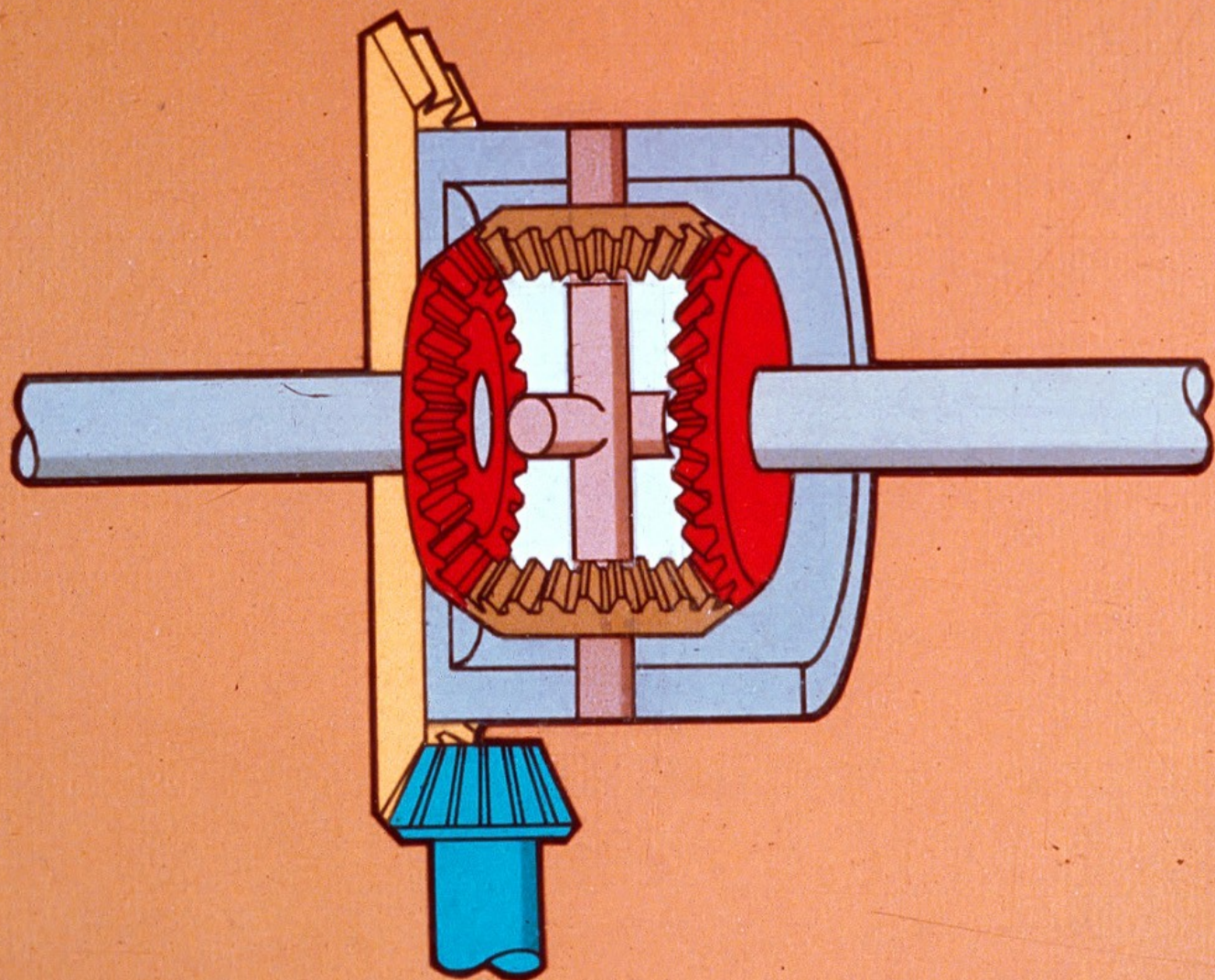












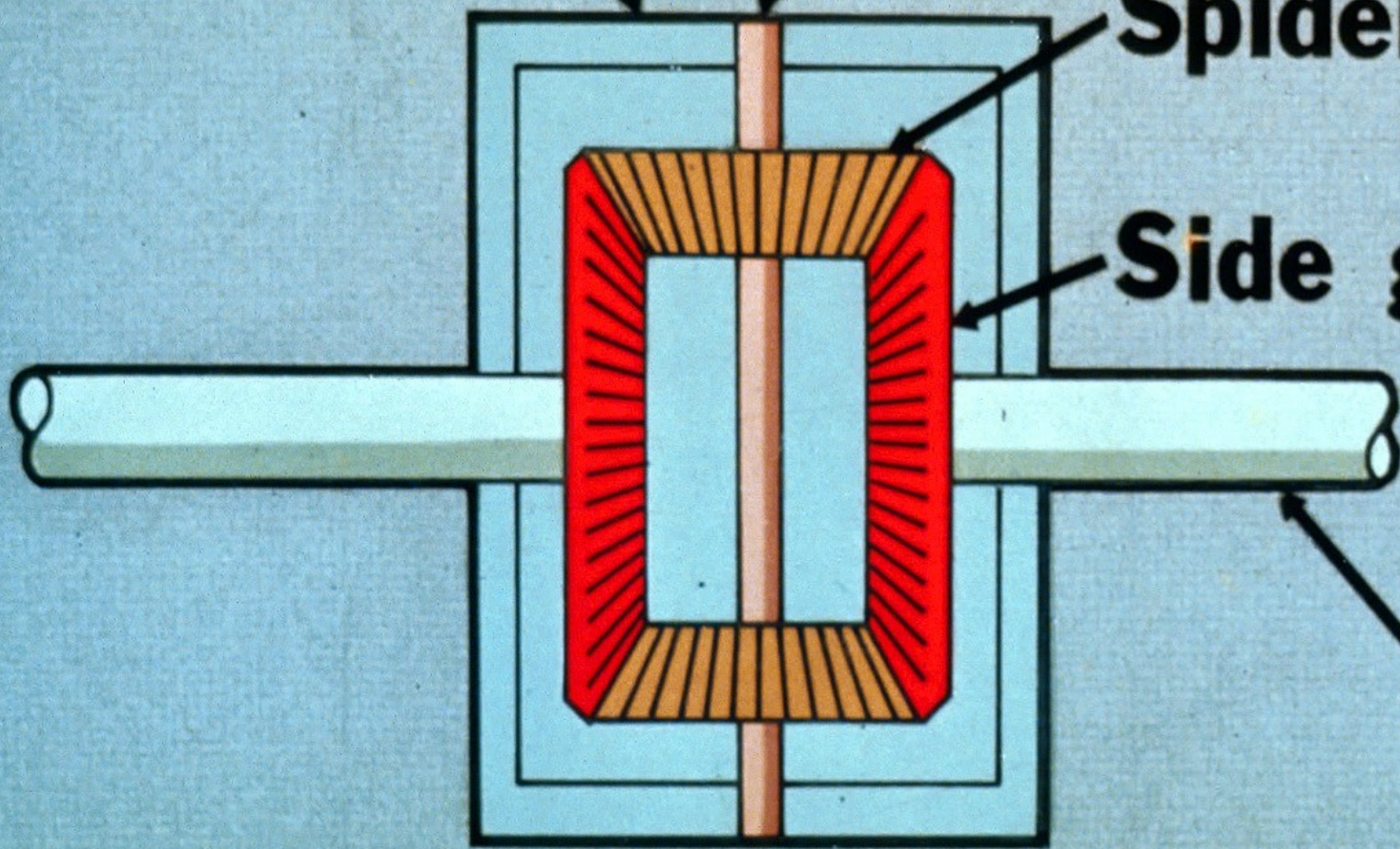
Housing

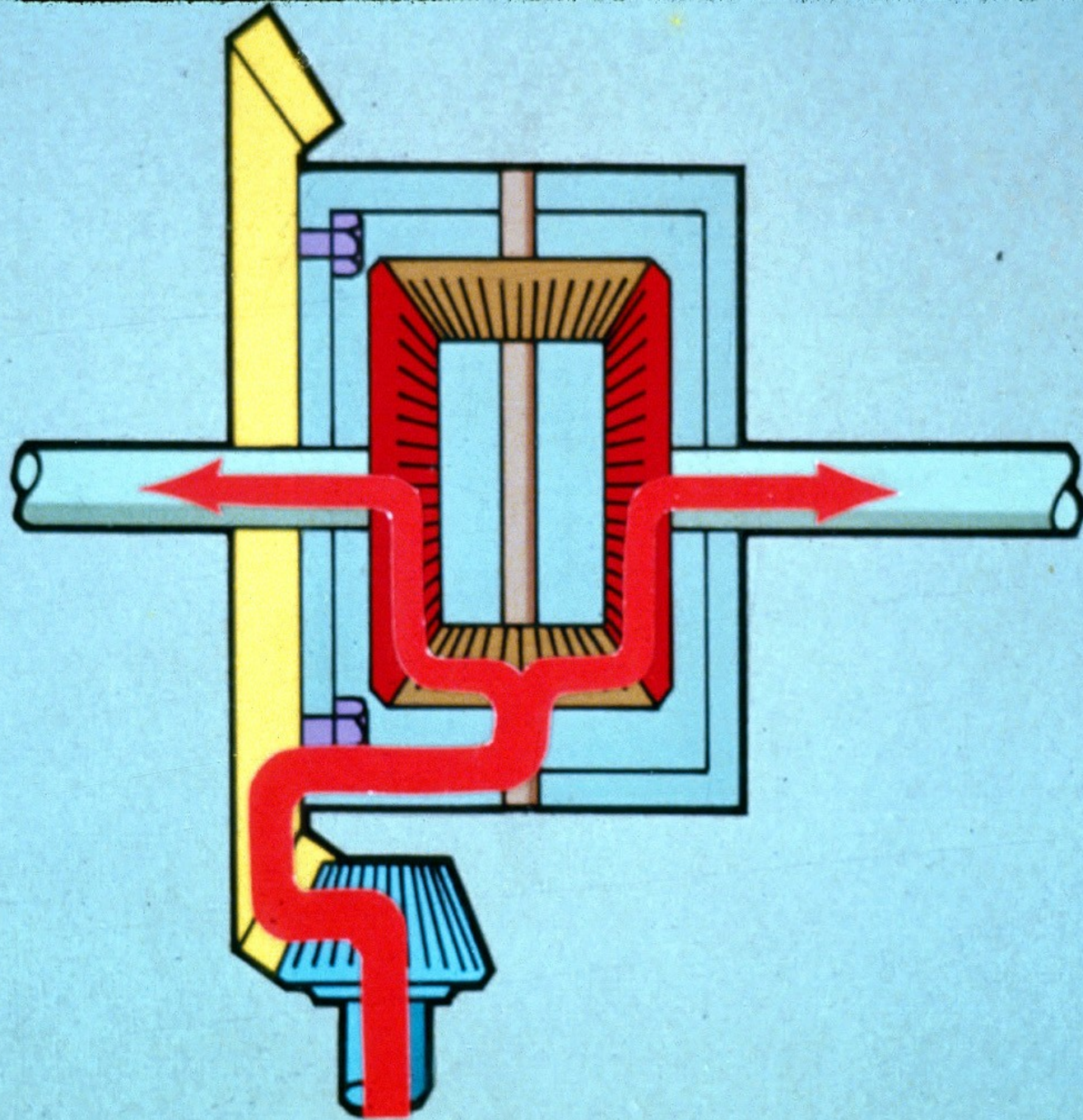
Spider

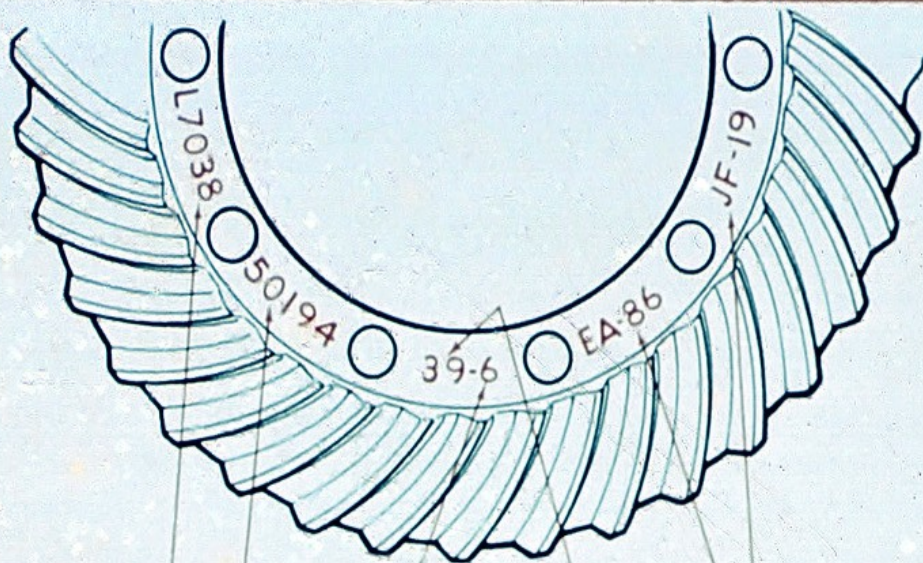
Spider gears

Side gears

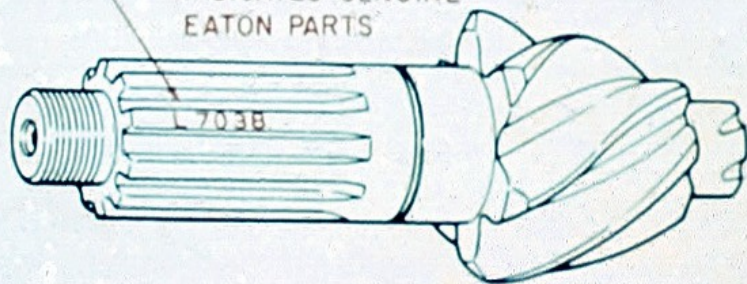
Axles

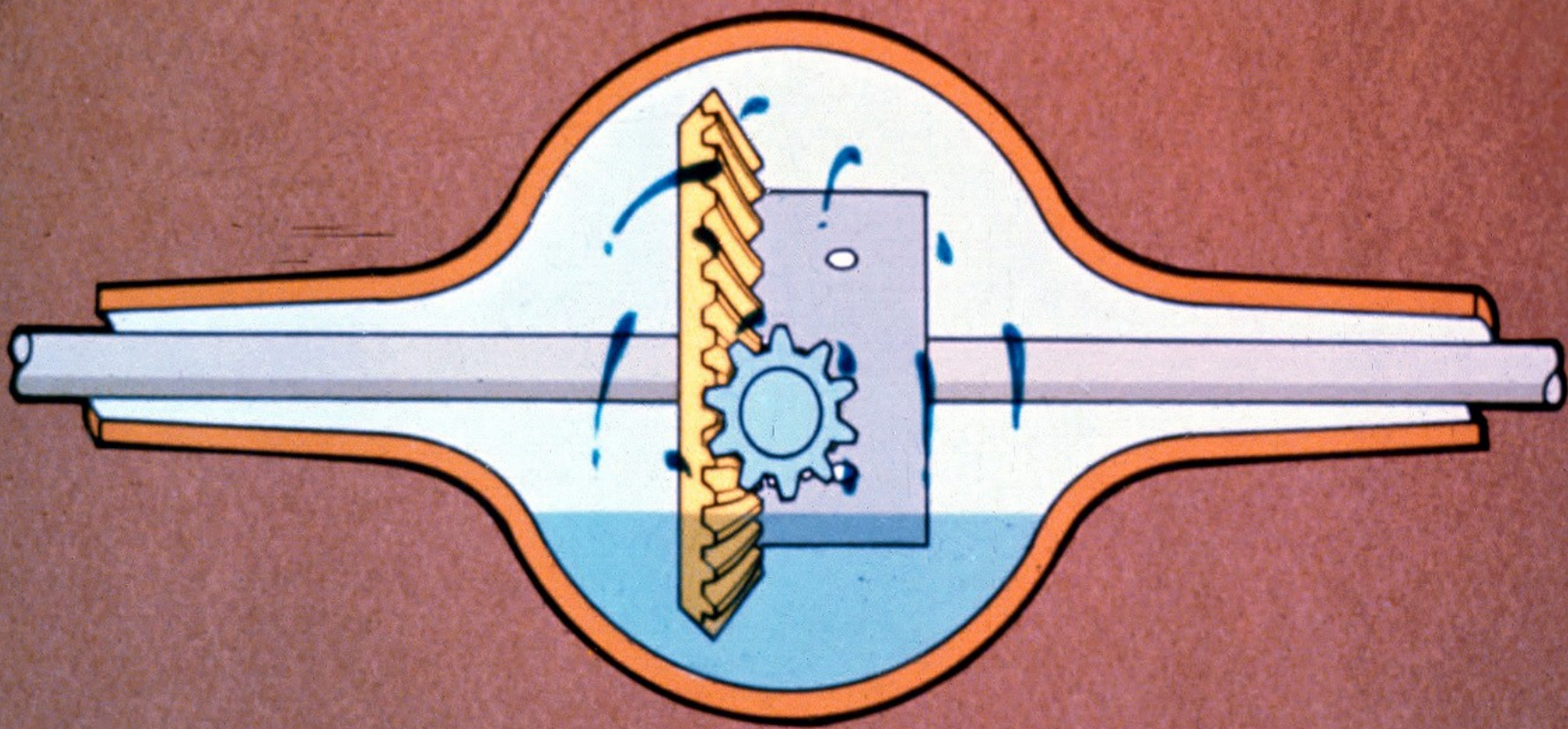


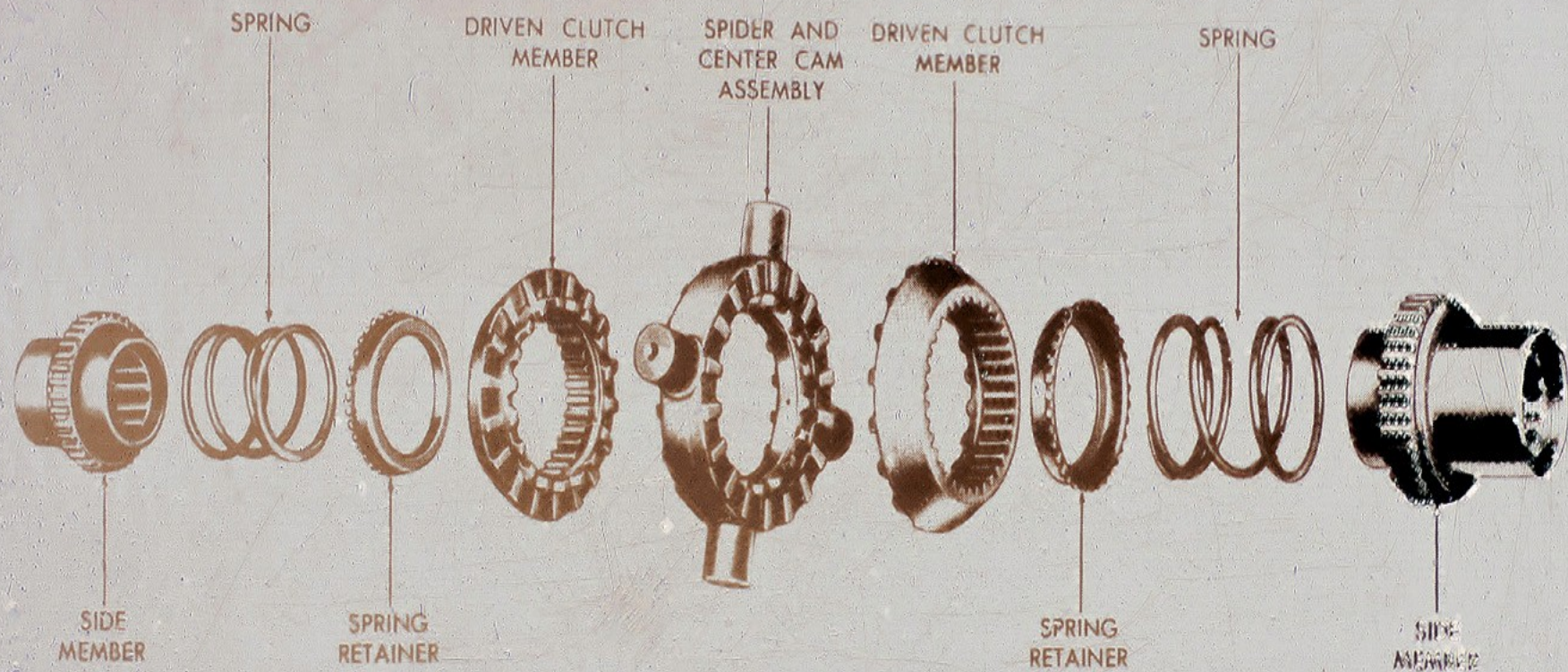




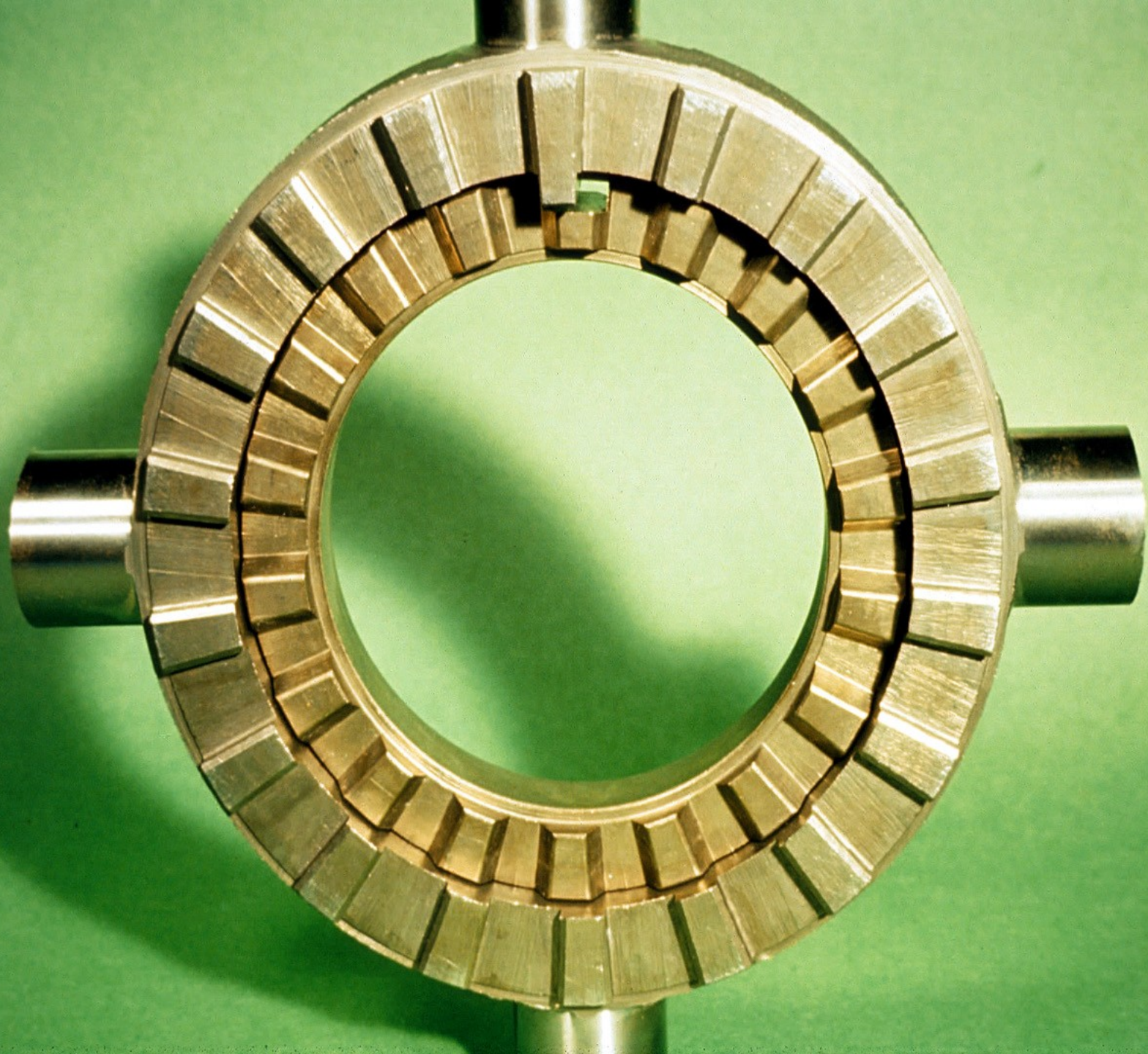
NO. OF PINION TEETH
NO. OF RING GEAR TEETH
PART NO.
MANUFACTURING NUMBERS
MATCHED GEAR SET NO.
INDICATES GENUINE EATON PARTS

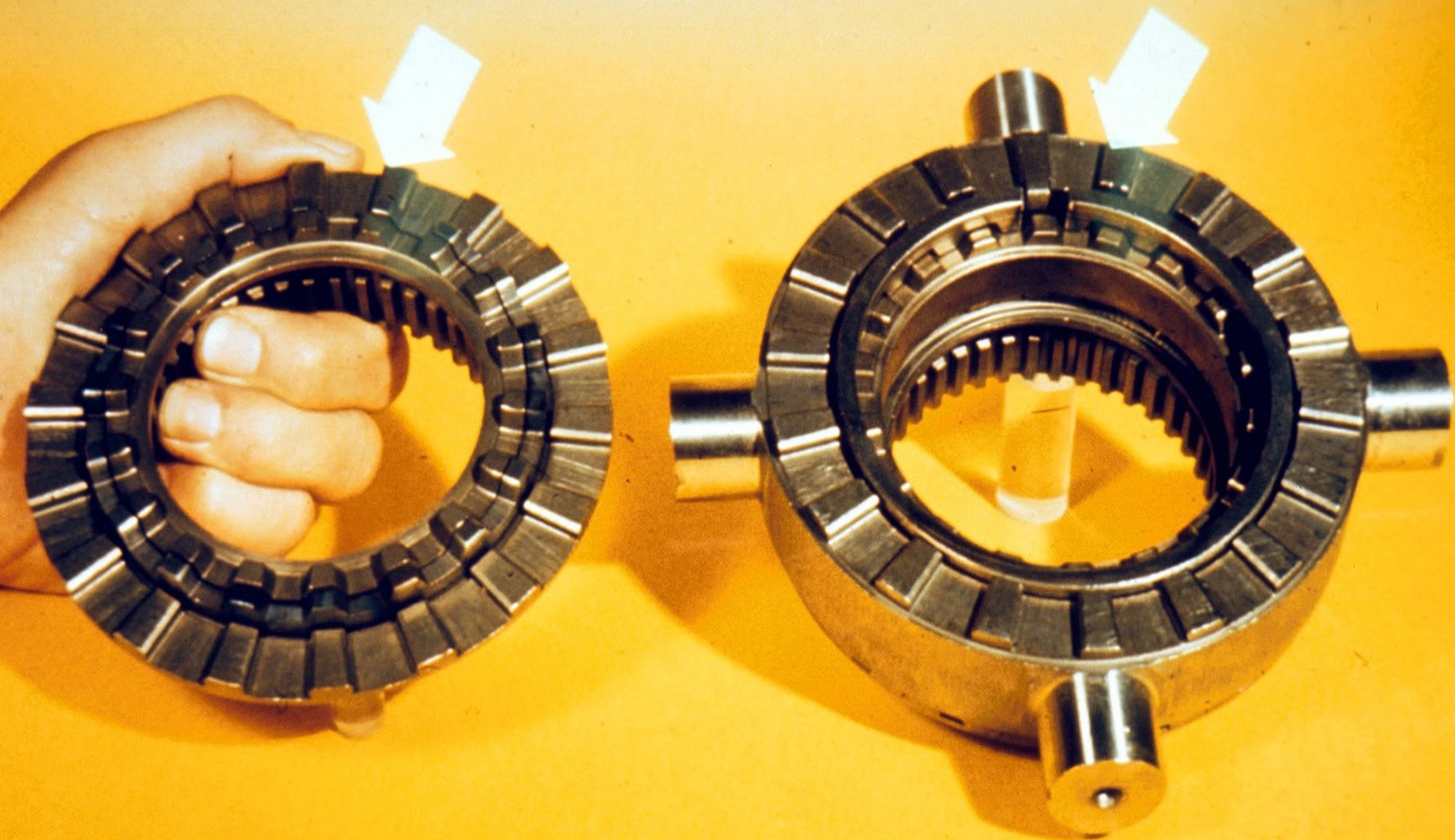






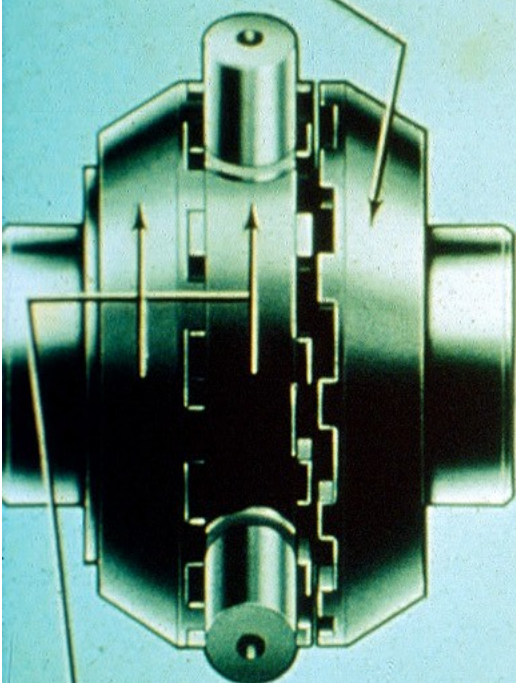
No-spin differential—disassembled view.







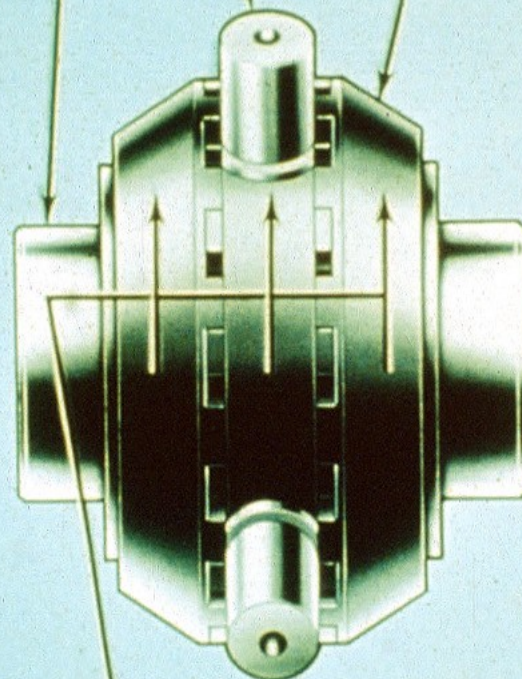
DRIVEN CLUTCH
ELEVATED BY CAMS
DISENGAGES AND
TRAVELS AT FASTER
SPEED



DRIVEN CLUTCH AND
SPIDER ARE LOCKED
AND TRAVEL AT
SAME SPEED

A

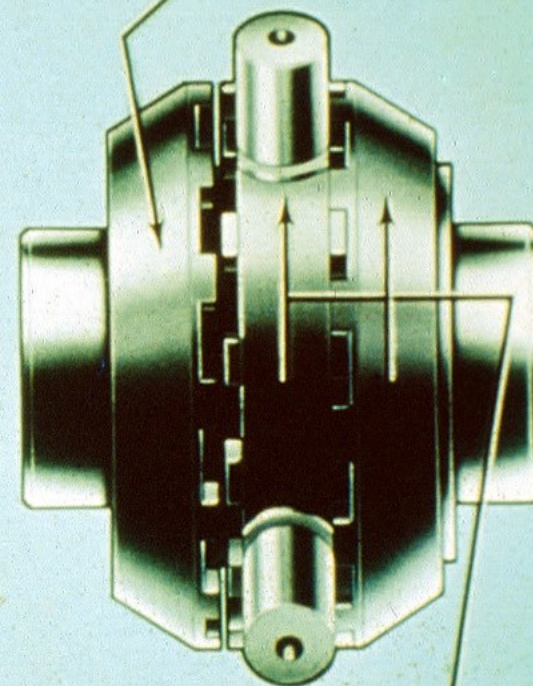
SPIDER
SIDE
GEAR
DRIVEN
CLUTCH



BOTH DRIVEN
CLUTCHES AND
SPIDER TRAVEL
AT SAME SPEED

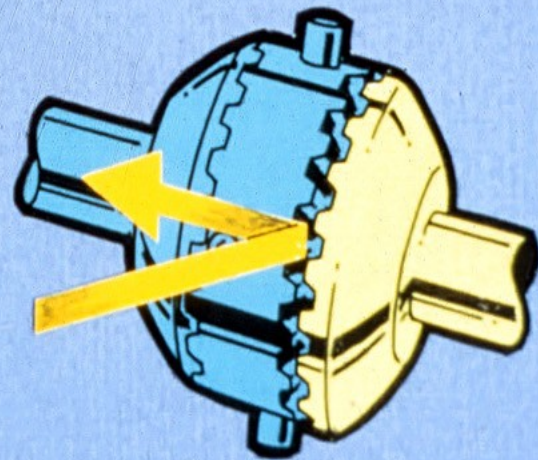
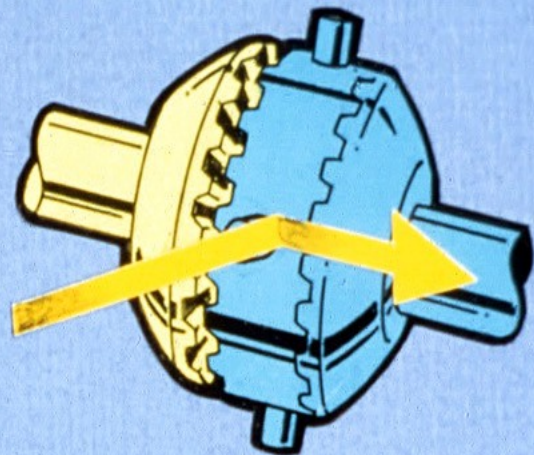
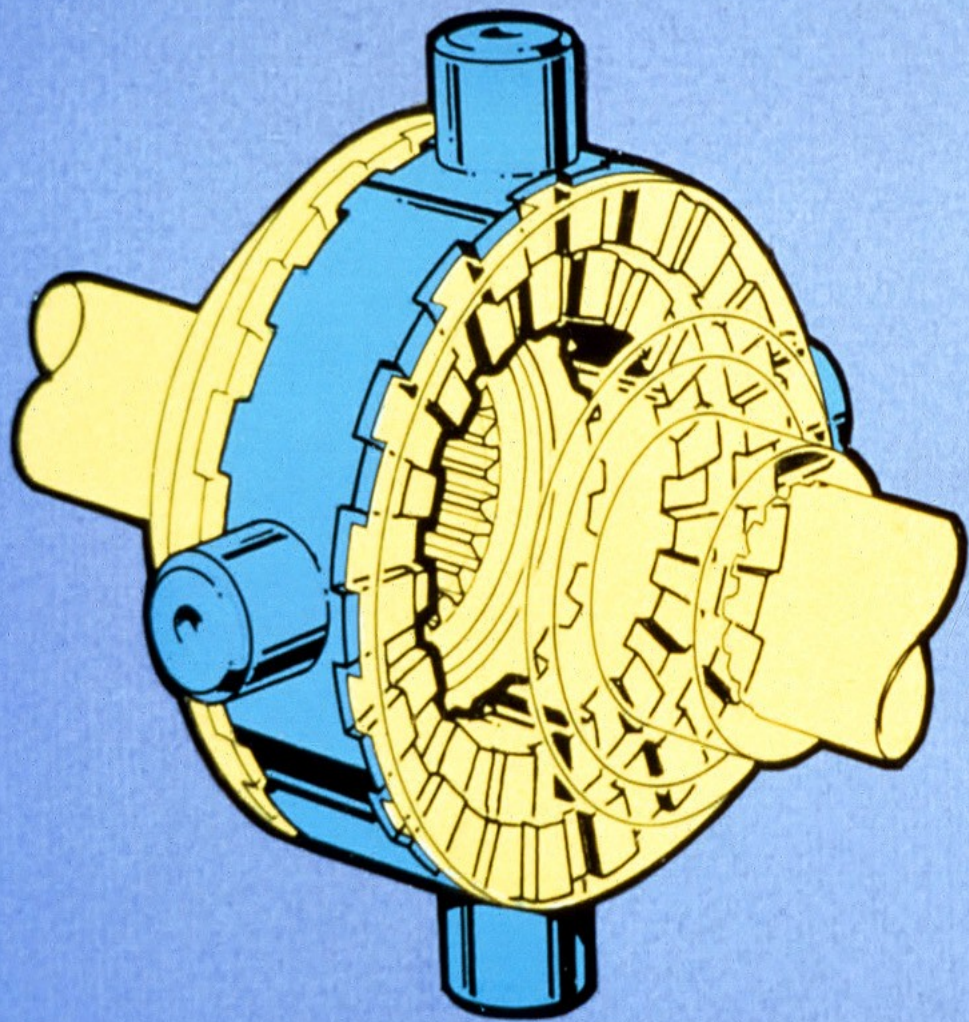
B

DRIVEN CLUTCH
ELEVATED BY CAMS
DISENGAGES AND
TRAVELS AT FASTER
SPEED



DRIVEN CLUTCH AND
SPIDER ARE LOCKED
AND TRAVEL AT
SAME SPEED

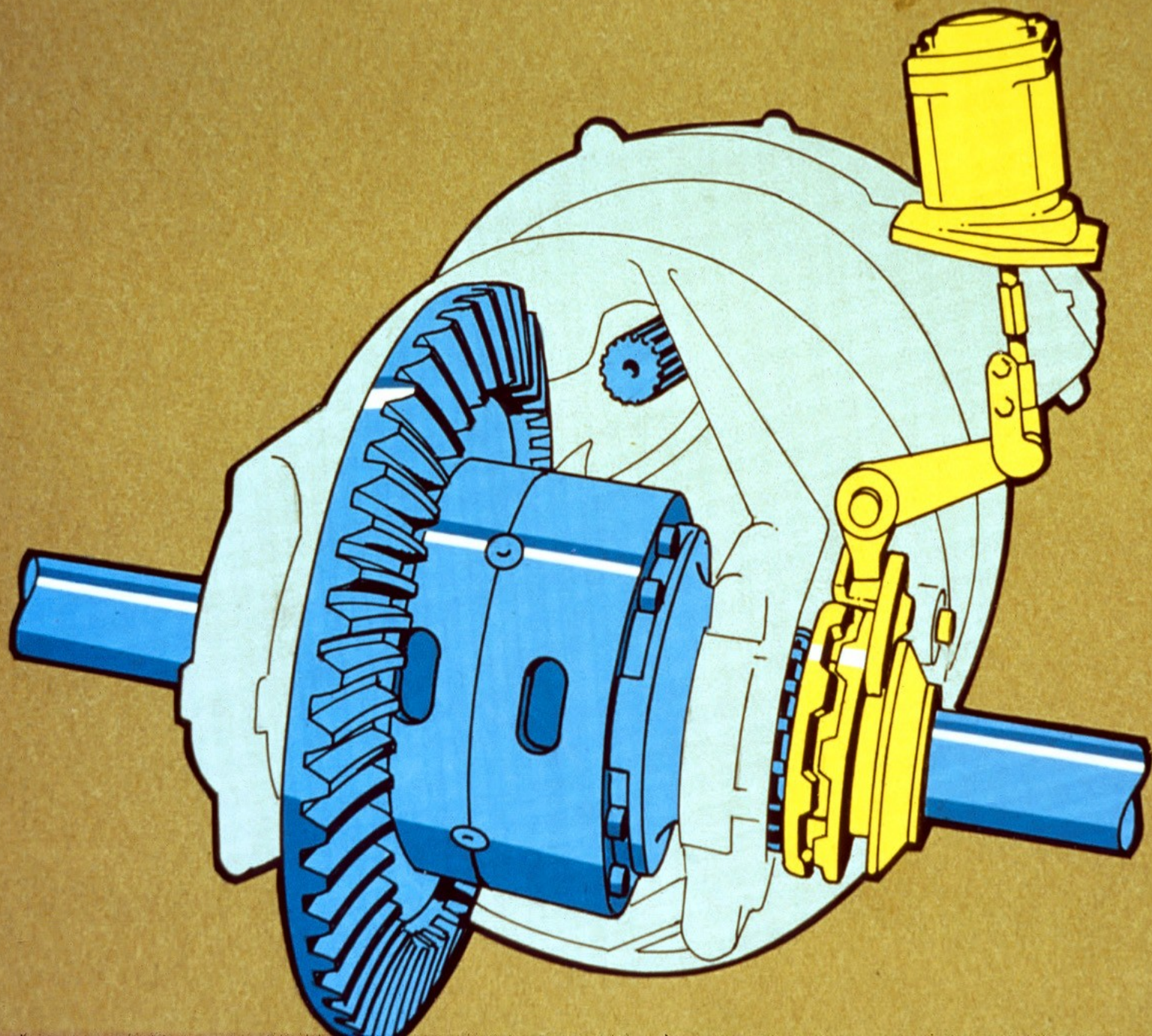
C

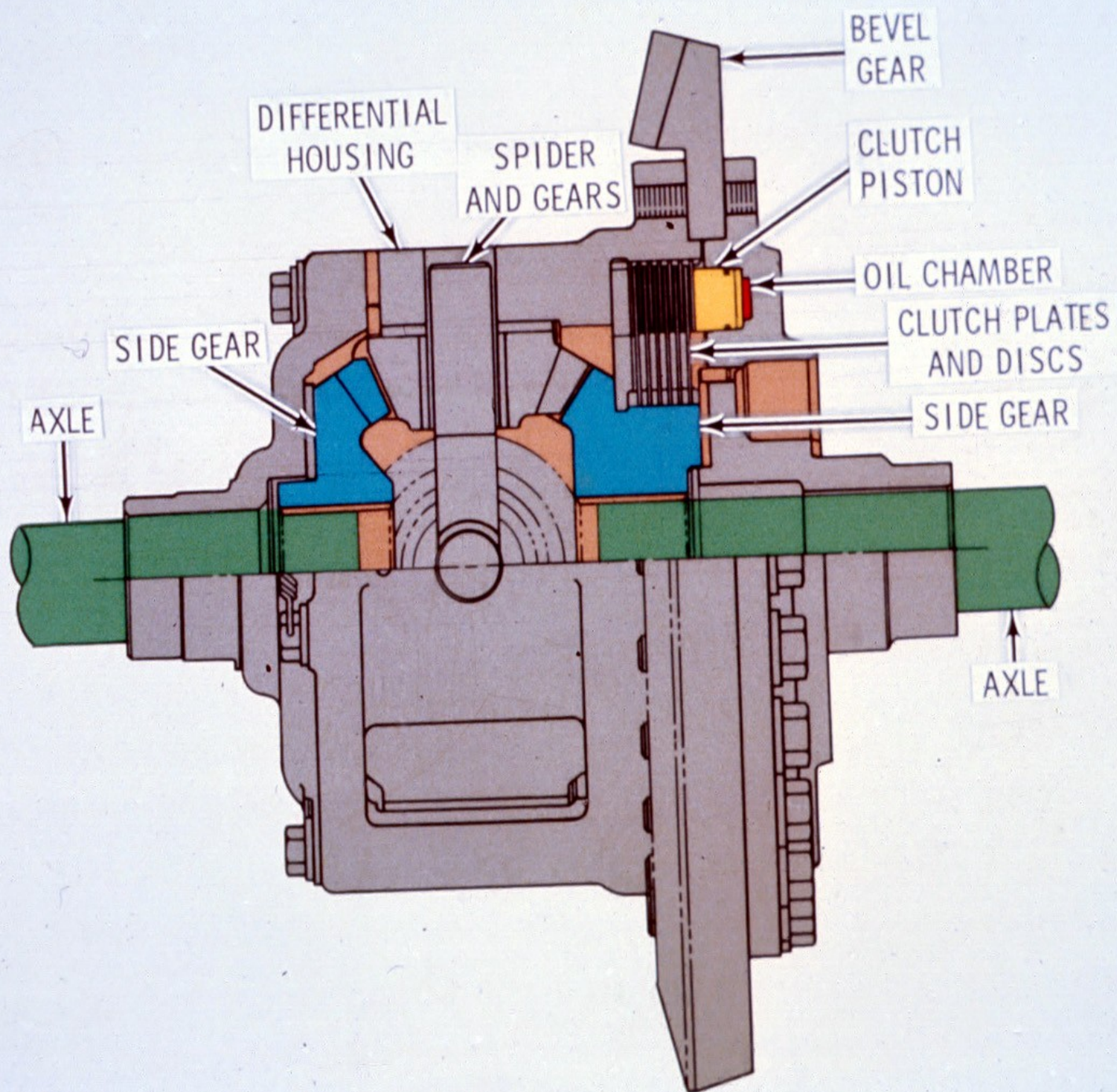




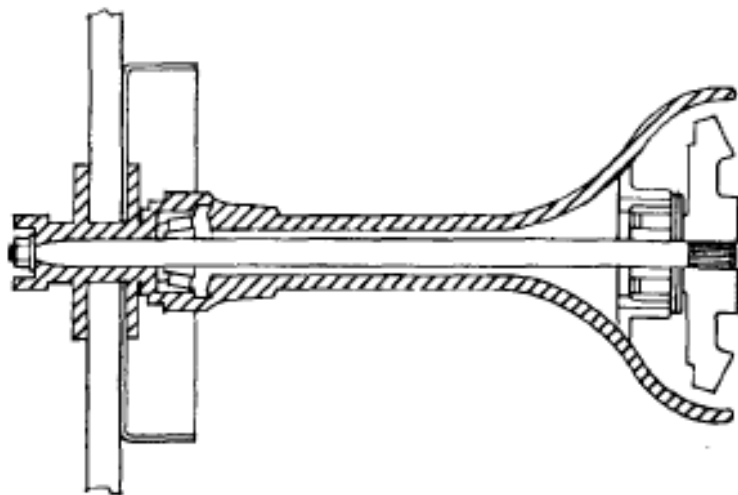




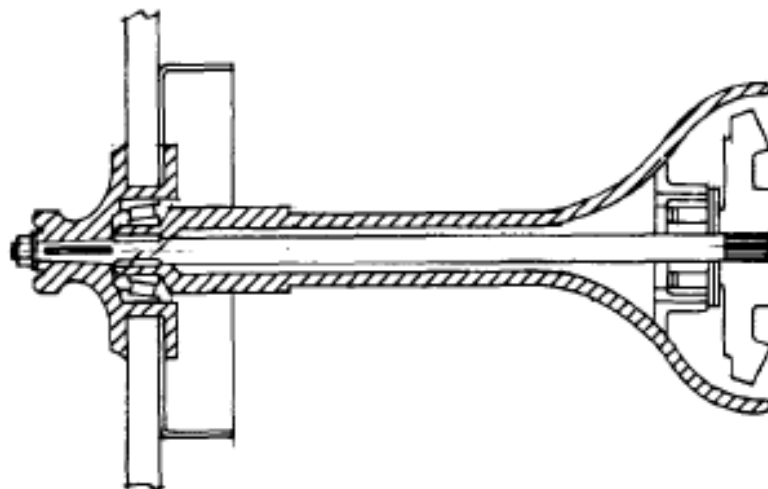




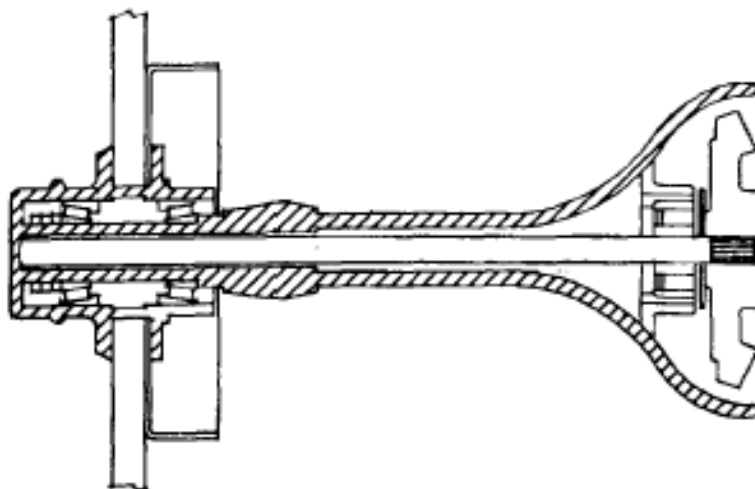
DRIVE AXLE



B. SEMIFLOATING REAR AXLE



C. THREE-QUARTER FLOATING REAR AXLE



D. FULL-FLOATING REAR AXLE

